RECENT LITERATURE.

Doelter's Allgemeine Chemische Mineralogie [1] is a collection in logical order of all those facts relating to the chemistry of minerals that are so interesting to the modern mineralogist. After discussing crystal structure in its relation to the chemical molecule, and defining isomorphism, isomerism, polymorphism, and isoganism, and briefly touching upon morphotropism, the author describes the ordinary methods of chemical analysis, and then occupies about seventy pages in a treatment of the subject of mineral synthesis. It is this latter portion of the volume that is most interesting. The author is himself such an indefatigable worker in this line of investigation that his remarks on the manufacture of minerals must be accepted as worthy of great confidence. Everywhere in these pages he writes himself master in his chosen study. He distinguishes clearly between terms that seem to approach each other in meaning, and defines them in such simple language that they need no longer be misunderstood. He divides the subject into two parts,—viz., the recrystallization of mineral substances already prepared, and the production of minerals and their crystallization. Under each head the methods that have proven most satisfactory for the purposes desired are given in detail, and following these is a brief but sufficiently full account of experiments that have yielded mineral products, with references to the articles in which they are described. Nearly every synthesis that has ever been made may be traced by the aid of the book,—a feat that has heretofore been possible only with the greatest difficulty. The last three parts of the volume deal with the chemical changes effected in minerals by change in temperature and by the action of solvents, the formation of minerals in nature, and the chemical composition and constitution of minerals.

Though the book is not as complete as is Lehmann's Molecular Physik in its treatment of those subjects that both discuss in common, it serves as a supplement to Lehmann's wonderful production, and demands a place beside this in every mineralogist's library.—W. S. B.

Fewkes's Cœlenterates and Echinoderms.[2]—Dr. Fewkes has presented the New England student of the old group of Radiates a

[1] Leipzig, 1890, pp. 278, illus. 14.

[2] An Aid to the Collector of the Cœlenterata and Echinodermata of New England. By J. Walter Fewkes. Bulletin Essex Institute, Vol. XXIII., pp. 91. Salem, 1891.